

Coaxial

Power Splitter/Combiner

ZFRSC-2050+

2 Way-0° Resistive 50Ω DC to 2000 MHz



BNC version shown
CASE STYLE: K18

Connectors Model
BNC ZFRSC-2050+
N-TYPE ZFRSC-2050-N+
BRACKET (OPTION "B")

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Maximum Ratings

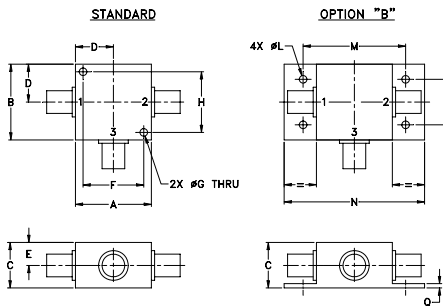
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power Input (as a splitter)	0.75W max.
Internal Dissipation	0.375W max.

Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

SUM PORT	3
PORT 1	1
PORT 2	2

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	wt
1.25	1.25	.75	.63	.38	1.00	.125	1.000	--	--	.125	1.688	2.18	.75	.07	grams
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40	--	--	3.18	42.88	55.37	19.05	1.78	70.0

For option B with N-type connectors, dimension "C" increases to 0.94 inches.

Features

- wideband, DC to 2000 MHz
- low insertion loss, 6.5 dB typ.
- excellent amplitude unbalance, 0.02 dB typ.
- rugged shielded case

Applications

- laboratory
- test set-ups

Electrical Specifications

FREQ. RANGE (MHz)	ISOLATION (dB)			INSERTION LOSS (dB) ABOVE 6.0 dB						PHASE UNBALANCE (Degrees)			AMPLITUDE UNBALANCE (dB)		
	L	M	U	L	M	U	L	M	U	L	M	U	L	M	U
f_l - f_u	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Max.	Max.	Max.	Max.	Max.	Max.
DC-2000	6.2	6.6	7.0	0.1	0.2	0.3	0.6	0.5	1.4	1	2	5	0.1	0.2	0.5

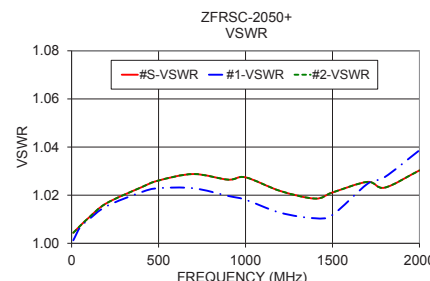
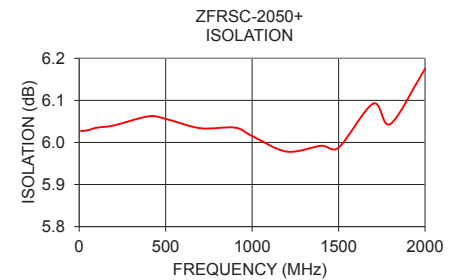
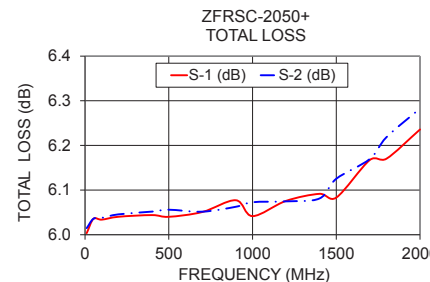
L = low range [DC-100 MHz] M = mid range [100 MHz to $f_u/2$] U = upper range [$f_u/2$ to f_u]

This is a resistive power divider to enable frequency coverage from dc to the highest rated frequency. Since resistive power divider do not provide a high degree of isolation (basically isolation equals the insertion loss between ports), an amplifier such as Mini-Circuits' ZFL series is recommended when high isolation is required. Matched power rating 0.75W, internal load dissipation 0.375W.

Typical Performance Data

Frequency (MHz)	Total Loss ¹ (dB)		Amplitude Unbalance (dB)	Isolation (dB)	Phase Unbalance (deg.)	VSWR S	VSWR 1	VSWR 2
	S-1	S-2						
10	6.00	6.01	0.01	6.03	0.05	1.00	1.00	1.00
50	6.04	6.04	0.00	6.03	0.05	1.01	1.01	1.01
100	6.03	6.04	0.00	6.04	0.03	1.01	1.01	1.01
200	6.04	6.05	0.01	6.04	0.10	1.01	1.02	1.02
400	6.04	6.05	0.01	6.06	0.13	1.02	1.02	1.02
500	6.04	6.06	0.02	6.06	0.17	1.03	1.02	1.03
700	6.05	6.05	0.00	6.03	0.24	1.03	1.02	1.03
900	6.08	6.06	0.01	6.04	0.29	1.02	1.02	1.03
1000	6.04	6.07	0.03	6.02	0.33	1.02	1.02	1.03
1200	6.08	6.07	0.00	5.98	0.45	1.02	1.01	1.02
1400	6.09	6.08	0.01	5.99	0.45	1.01	1.01	1.02
1500	6.08	6.13	0.04	5.99	0.69	1.01	1.01	1.02
1700	6.17	6.17	0.00	6.09	0.93	1.01	1.02	1.03
1800	6.17	6.22	0.05	6.04	0.60	1.01	1.03	1.02
2000	6.24	6.28	0.05	6.18	0.86	1.01	1.04	1.03

1. Total Loss = Insertion Loss + 6dB splitter loss.



electrical schematic



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/WCLStore/terms.jsp

